

# Meredith Lou

Email: charislou123@gmail.com Phone: 315-679-9187

LinkedIn: <https://www.linkedin.com/in/meredith-lou-458508b0>

**Education**      *M.S. Computer Engineering, Syracuse University, Sep 2019 - May 2021*  
*B.S. Computer Science, University of Wisconsin Madison, Sep 2014-May 2018*

## Technical Skills

---

Programming skills: SQL, Java, Python, R

Data Analysis Library: Pandas, Scikit Learn, Numpy, MATLAB

Tools: MySQL, Tableau, Google BigQuery, TensorFlow, KINIME

Apache Family: Apache Spark, Apache Airflow, Apache Cassandra

## Internship Experiences

---

**The Home Depot**      *Summer Data Scientist Intern*      *Mar 2019 - July 2019*

- Implement data cleaning, sentiment analysis and generate word cloud on customer online reviews
- Develop Tableau Dashboard from the research on customer behavior studies on Home Depot customers
- Analyze the cost trend on the factories worldwide by department, service provider and country
- Perform unsupervised machine learning algorithm for obtaining vector representation for words and the resulting cluster diagram of words showcase customers top interest or concerns

**Coins**      *Summer Data Analyst Intern*      *May 2016 - August 2016*

- Analyze customer's webpage activity logs, heat map and remodel the site layout
- Perform data migration from Microsoft SQL server to Google BigQuery
- Use A/B testing and logs of the user page activity to improve the website more user friendly

## Selected Projects

---

### New Semantic Approach on Yelp Review-Star Rating Classification

- Implement data cleaning, analysis and generate word cloud on Yelp users' reviews and comment
- Deploy PySpark library to implement machine learning algorithm accuracy in predicting user rating
- Introduce belief propagation algorithm and improve its accuracy in classification and prediction

### Forecast Active Users Email Opted-in Rate

- Implement time series model to find the seasonality trend of past users' visits and perform stationary test
- Validate the predicted results obtained from XGboost, random forest tree and gradient descent model
- Perform feature reduction and get feature importance for all the independent variables

### Data Modeling for Music Streaming Startup

- Create a database in Apache Cassandra and complete an ETL pipeline that transfers data from JSON
- Investigate song play data for users preference on different artists and song genre
- Automate a set of data pipeline for recommendation system with Airflow, monitor and debug production pipelines

## Selected Courses

---

Social Media and Data Mining; Advanced Data Structures and Algorithm; Introduction to Data Science

## Achievement

---

2019.07 Excellent Intern Award at The Home Depot

2016.09 - 2017.05 President of the Rotary Club at UW-Madison